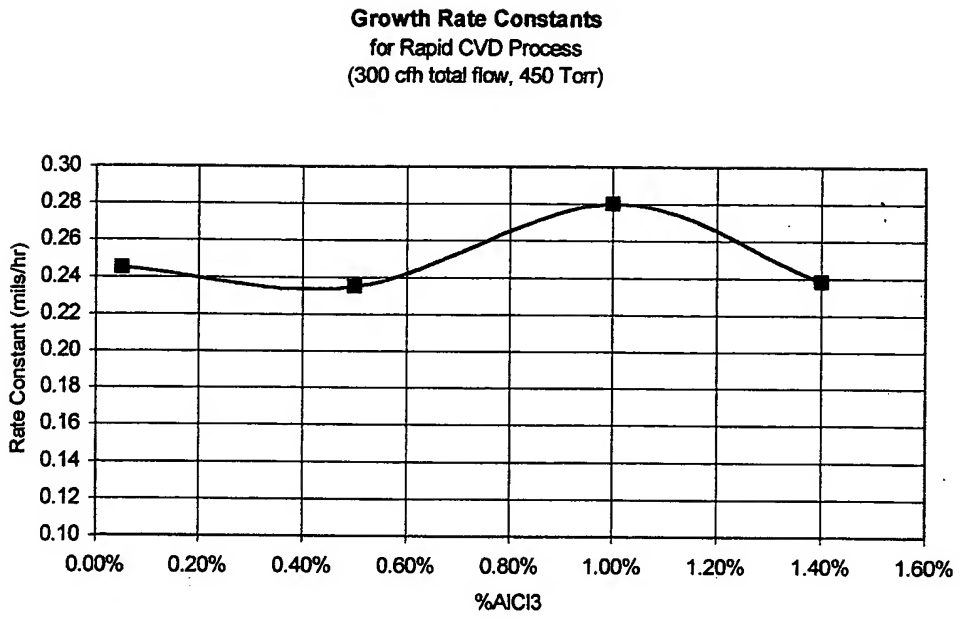

Figure 1

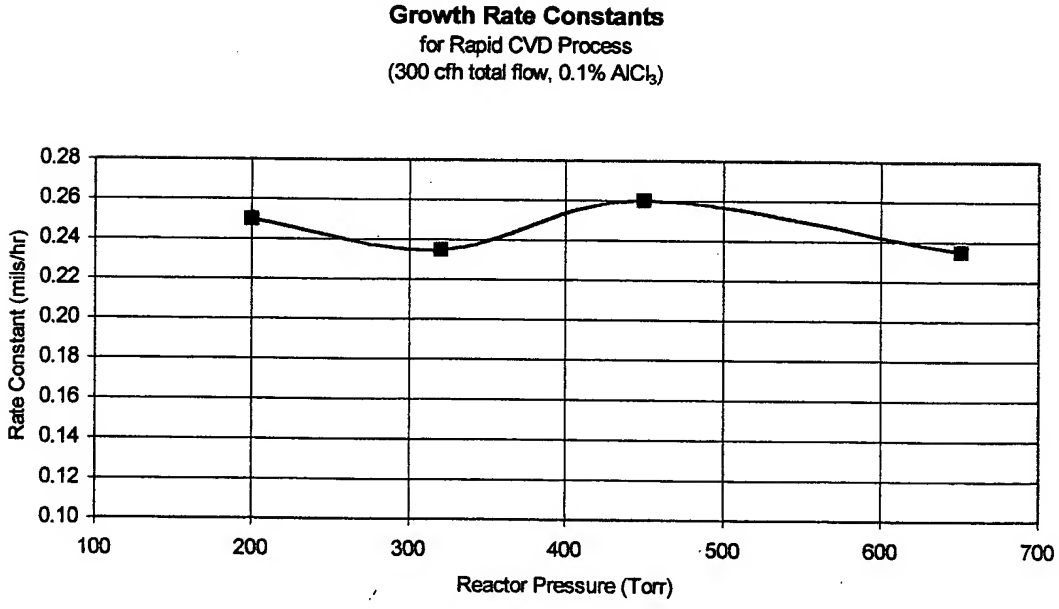

Figure 2

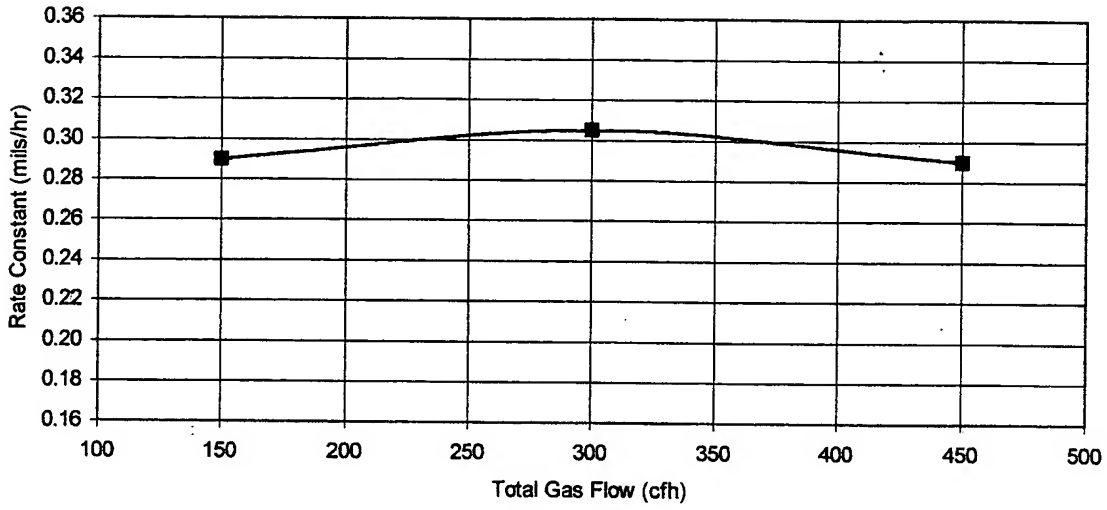
Growth Rat Constants
for Rapid CVD Process
(1.0%AlCl3, 200 Torr)
Rate Constant (mils/hr)
0.36
0.34
0.32
0.30
0.28
0.26
0.24
0.22
0.20
0.18
0.16
100
150
200
250
300
350
400
450
500
Total Gas Flow (cfh)

Figure 3

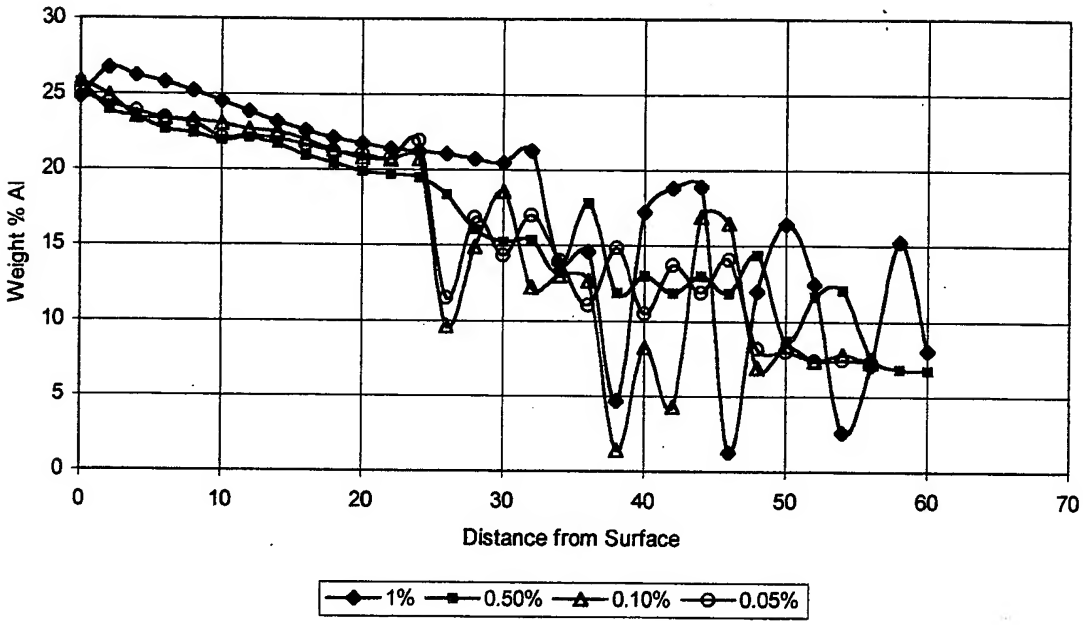
Aluminum Concentration Profiles
Rapid Cycle Comparison - Simple Aluminide
with Various Concentrations of AlCl3
Rene N5 - 450 Torr, 300 cfh
Weight % Al
Distance from Surface
0
5
10
15
20
25
30
0
10
20
30
40
50
60
70
1%
0.50%
0.10%
0.05%

Figure 4

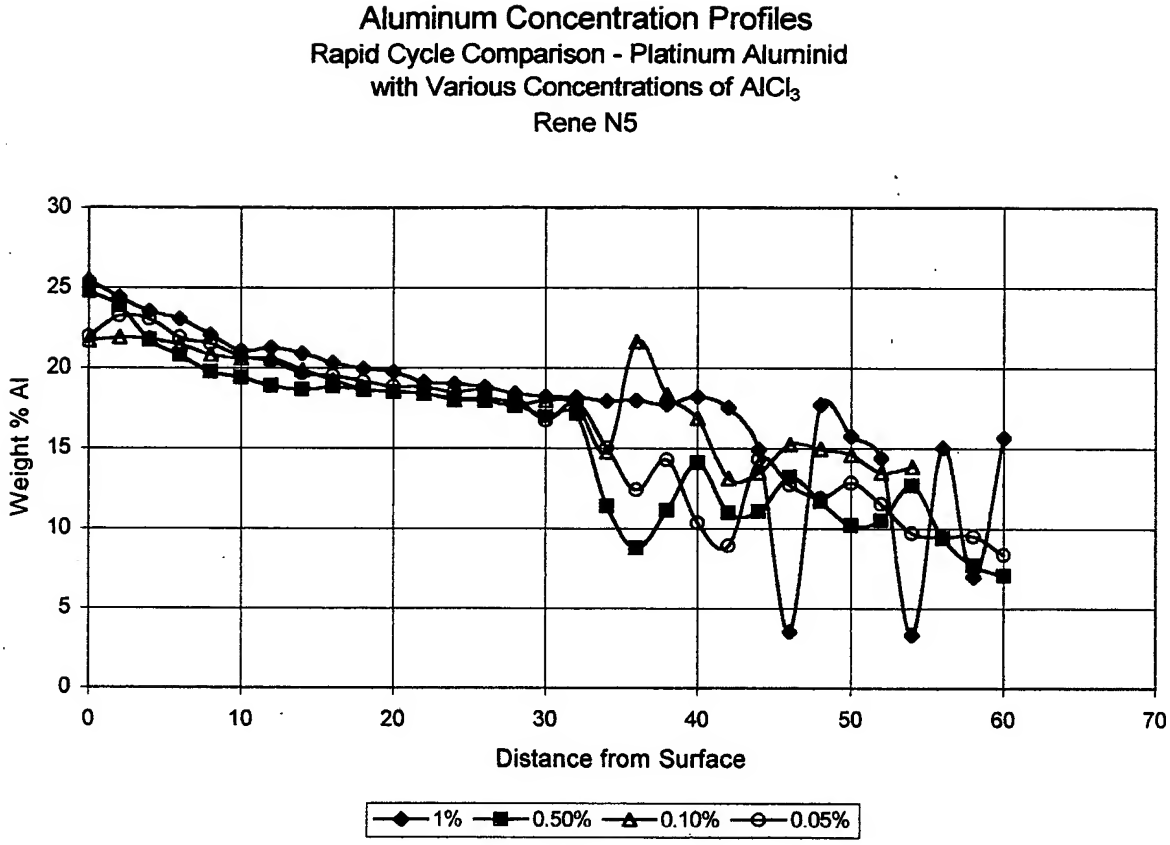
Aluminum Concentration Profiles
Rapid Cycle Comparison - Platinum Aluminid
with Various Concentrations of AlCl3
Rene N5
Weight % Al
30
25
20
15
10
5
0
0
10
20
30
40
50
60
70
Distance from Surface
1%
0.50%
0.10%
0.05%

Figure 5

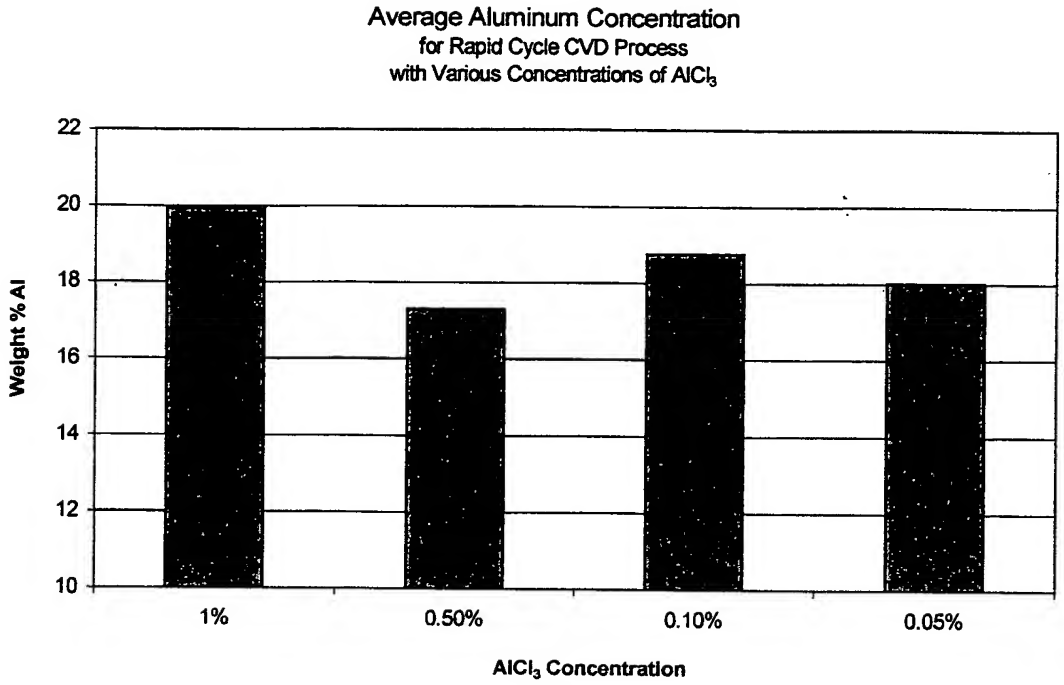

Figure 6

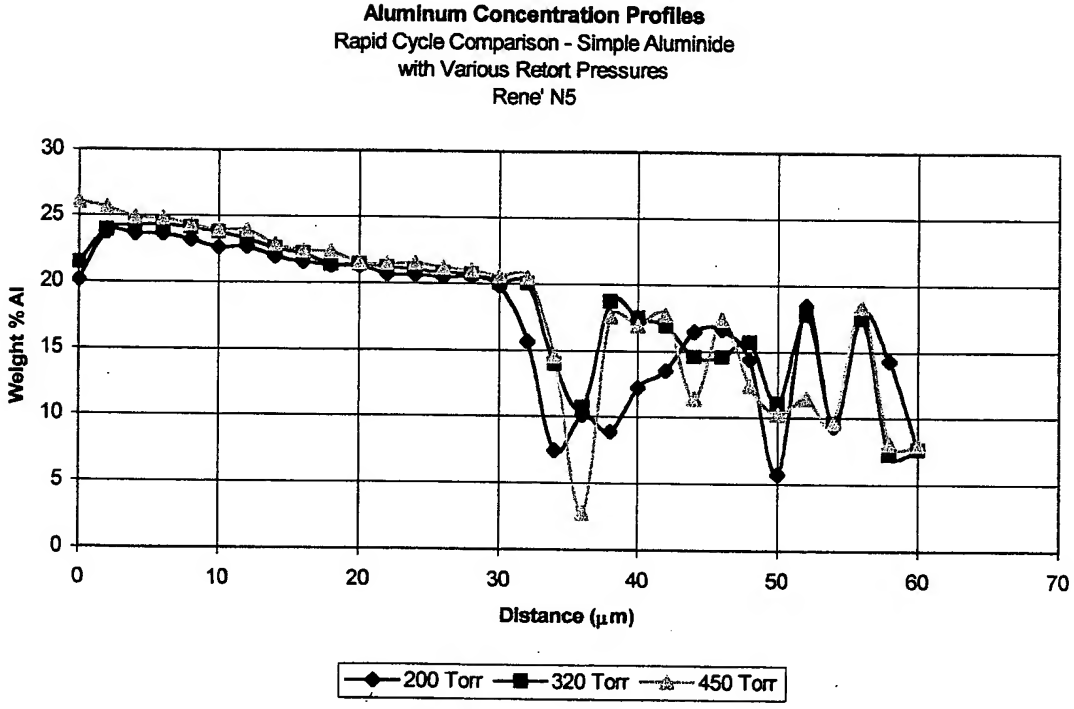

Figure 7

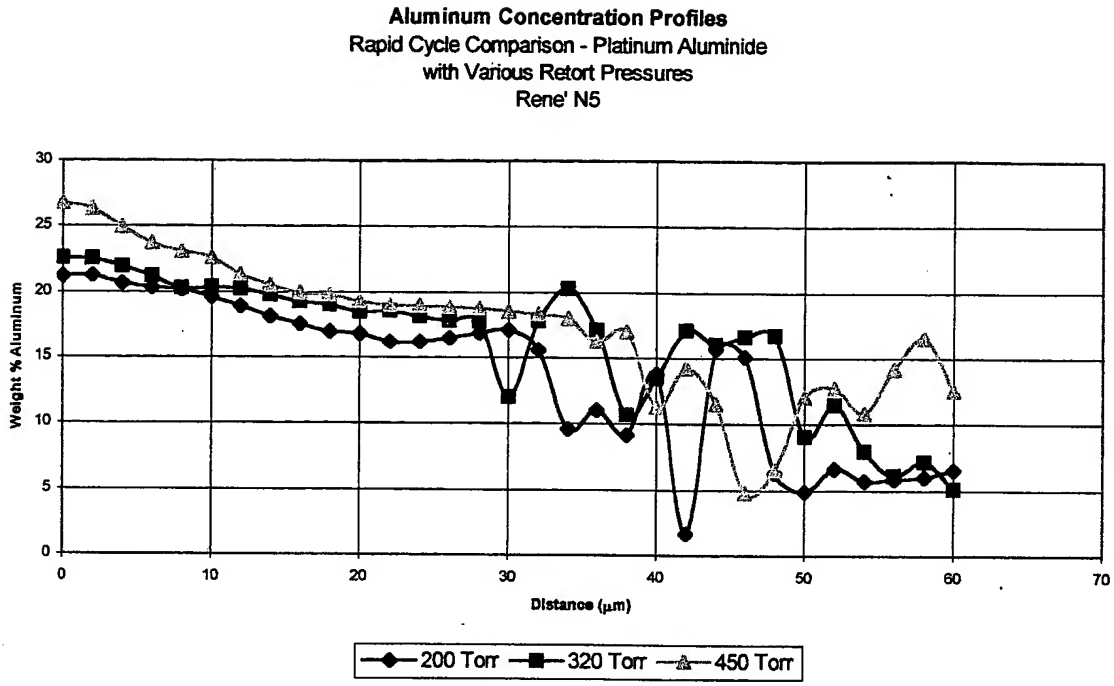

Figure 8

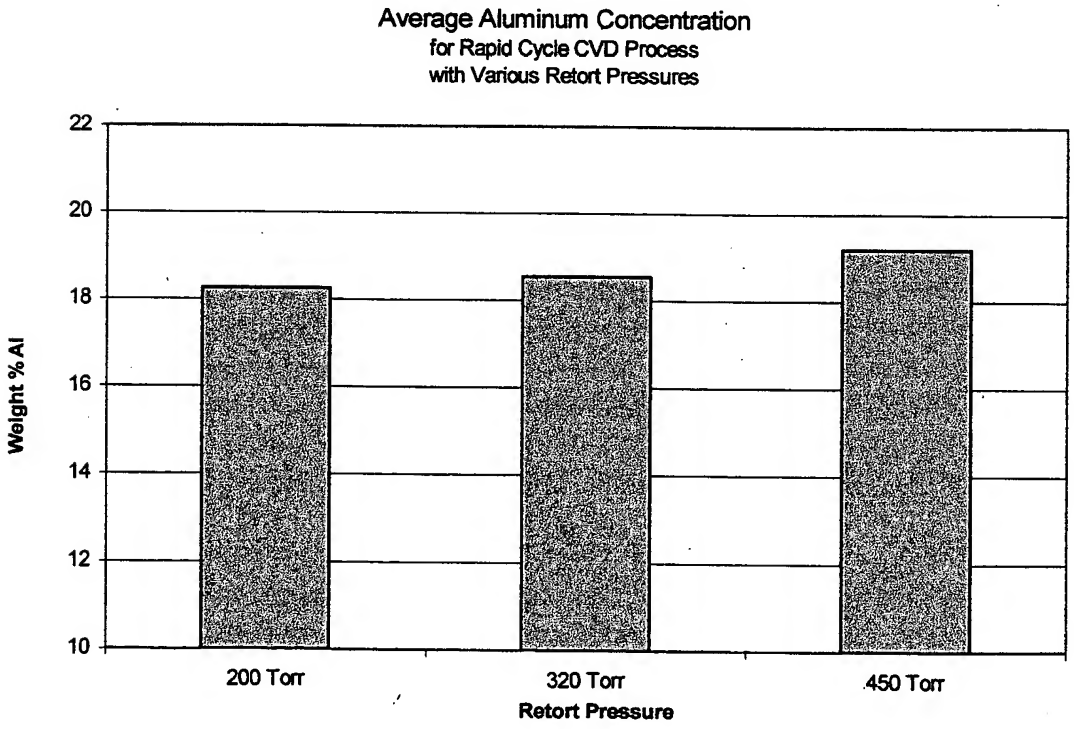

Figure 9

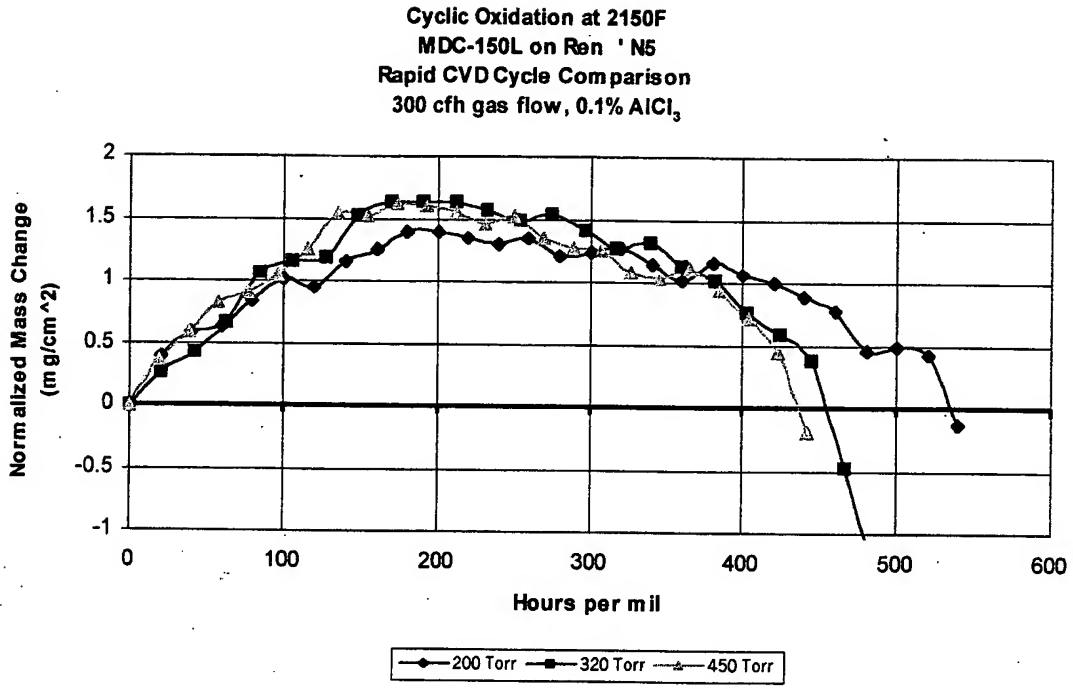
Cyclic Oxidation at 2150F
MDC-150L on Ren ' N5
Rapid CVD Cycle Comparison
300 cfh gas flow, 0.1% AlCl3
Normalized Mass Change (mg/cm^2)
2
1.5
1
0.5
0
-0.5
-1
0
100
200
300
400
500
600
Hours per mil
200 Torr
320 Torr
450 Torr

Figure 10

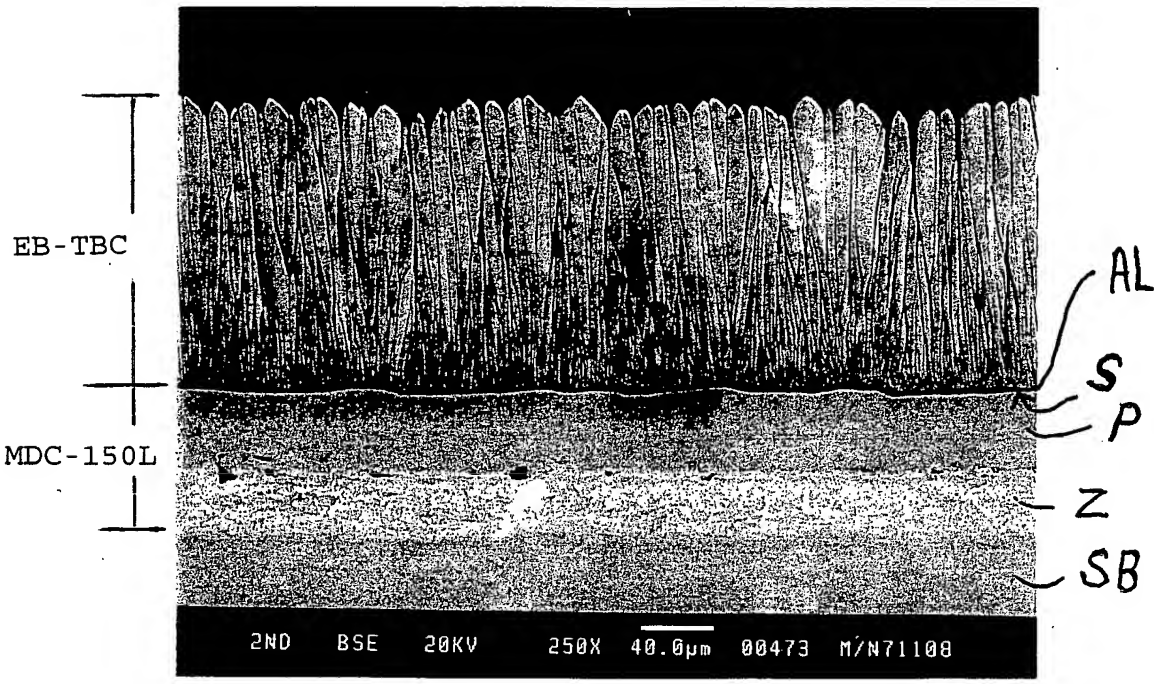
EB-TBC
MDC-150L
AL
S
P
Z
SB
2ND BSE 20KV 250X 40.0µm 00473 M/N71108

Figure 11